

AMENDMENTS TO THE DRAWINGS

A replacement sheet for Figure 3C is attached to this reply. Applicant asserts no new matter has been introduced by way of this replacement sheet and that this replacement sheet is in accordance with 37 CFR §1.84.

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 23-36 were pending in the present patent application. By way of this reply, claims 37 and 38 have been added. Accordingly, claims 23-38 are now pending in the present patent application. Claims 23 and 30 are independent. The remaining claims depend, either directly or indirectly, from claims 23 and 30.

Claim Amendments

Claims 23, 25, 30, and 32 have been amended for clarification. No new matter has been introduced by way of these amendments as support for these amendments may be found, for example, in Figure 10 and paragraph [0076] of the published specification.

Drawings

A replacement sheet for Figure 3C is attached to this reply. Specifically, the replacement sheet changes the chart label "PER THREAD ITEMS" to "PER PROCESS ITEMS." Applicant respectfully asserts no new matter has been introduced by way of this replacement sheet as support for this replacement sheet may be found, for example, in the originally filed drawings and in paragraph [0023] of the published application. Applicant respectfully requests that the Examiner acknowledge the formal drawings and indicate whether they are acceptable.

Rejections under 35 U.S.C. §103

Claims 23-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,470,346 (hereinafter "Morwood") in view of U.S. Patent No. 6,842,898 (hereinafter "Carlson"). For the reasons set forth below, this rejection is respectfully traversed.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See*, MPEP §2143.

Amended independent claim 23 recites, in part, “associating a first input stream and a first output stream with the first thread... associating a second input stream and a second output stream with the second thread; and writing a first data value from the first thread to the second thread using the first output stream and the second input stream.” In other words, the claims require that (i) there be at least two distinct threads, (ii) each of the at least two distinct threads have distinct input streams, (iii) each of the at least two distinct threads have distinct output streams, and (iv) a first data value must be written from the first thread to the second thread using the first output stream and the second input stream.

The Examiner has attempted to equate at least one of the “Stdout” and “Stderr” output streams, as disclosed by Morwood, with the first output stream, as recited by the independent claims. The Examiner has also attempted to equate at least one of the “Stdout” and “Stderr” output streams, as disclosed by Morwood, with the second output stream, as recited by the independent claims. (*See*, Office Action dated April 9, 2007, at page 3). These associations are improper. Morwood explicitly discloses both the “Stdout” and “Stderr” output streams are associated with a single “ComputationImpl” thread. (*See, e.g.*, Morwood at column 11, lines 30-40 and at column 13, lines 53-63). Morwood is completely silent regarding the “Stdout” and “Stderr” output streams being associated with any thread other than the “ComputationImpl” thread. Further, although

Morwood discloses there may be multiple "ComputationImpl" threads, each of the multiple "ComputationImpl" threads are associated with *at most* one "ComputationImpl" object. In fact, no two "ComputationImpl" threads communicate with each other (*i.e.*, the multiple "ComputationImpl" threads are independent). (*See*, Morwood at column 11, lines 35-37).

Thus, for at least one of the "Stdout" and "Stderr" output streams to be associated with the first output stream, while at least one of the "Stdout" and "Stderr" output streams is simultaneously equated with the second output stream, the Examiner must assert either (a) the first thread and the second thread are in fact the same thread, or (b) the first thread is a "ComputationImpl" thread and the second thread is a "ComputationImpl" thread.

In order to assert option (a), the Examiner must effectively read out claim requirement (i) (*i.e.*, two distinct threads). Further, the Examiner must effectively read out claim requirement (iv) (*i.e.*, the first thread communicates with the second thread using the first output stream and the second input stream) since it is unrealistic and illogical to assume a single thread would communicate with itself using the single thread's input stream and output stream.

In order to assert option (b), the Examiner must effectively readout claim requirement (iv) (*i.e.*, the first thread communicates with the second thread using the first output stream and the second input stream), as no two "ComputationImpl" threads communicate with each other (*i.e.*, the multiple "ComputationImpl" threads are independent), which is also, and equally, improper.

Morwood discloses at least two distinct threads: a "ComputationImpl" thread (as discussed above) and a "ManagerImplProcessing" thread. The "ComputationImpl" thread is created by a "ComputationImpl" object. In contrast, the "ManagerImplProcessing" thread is created by a "ManagerImpl" object. Morwood further discloses the "ManagerImpl" object is

responsible for generating the "ComputationImpl" object. (See, Morwood at column 11, lines 15-25 and lines 28-40). Accordingly, the "ComputationImpl" thread is not the same as the "ManagerImplProcessing" thread.

As the "ManagerImplProcessing" thread is not equivalent to the "ComputationImpl" thread, and the "Sdout" and "Stderr" are only disclosed as being associated with the "ComputationImpl" thread, it follows that the "Sdout" and "Stderr" output streams are not associated with the "ManagerImplProcessing" thread. However, the Examiner has attempted to equate the "ManagerImplProcessing" thread, as disclosed by Morwood, with the second output thread, as recited by the independent claims, while simultaneously equating at least one of the "Sdout" and "Stderr" output streams, as disclosed by Morwood, with the second output stream, as recited by the independent claims. The Examiner is effectively changing what is actually disclosed by the prior art in an attempt to render the independent claims either anticipated or obvious, which is unrealistic and wholly improper.

Carlson discloses a data processing system for monitoring a plurality of threads using one or more polling techniques. When it is determined through polling a thread is inactive, a cleanup procedure is executed. (See, Carlson at Abstract). However, Applicant respectfully asserts Carlson does not cure what Morwood lacks.

In view of the above, Morwood and Carlson, whether viewed separately or in combination, do not teach each and every limitation of amended independent claims 23 and 30. Accordingly, the Examiner's contentions do not support the rejection of amended independent claims 23 and 30. Claims 24-29 and 31-36 depend, either directly or indirectly, from amended independent claims 23 and 30, and thus the Examiner's contentions also do not support the

rejection of amended claims 24-29 and 31-36. Accordingly, withdrawal of this rejection is respectfully requested.

New Claims

By way of this reply, claims 37 and 38 have been added. Applicant respectfully asserts no new matter has been introduced by way of these new claims as support for these new claims may be found, for example, in FIG. 3B and paragraph [0021] of the published specification. As discussed above, the Examiner's contentions do not support the rejection of amended independent claims 23 and 30. New claims 37 and 38 depend directly from amended independent claims 23 and 30, and thus are allowable for at least the same reasons.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 16159/098001; P5944).

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Enclosure (Replacement Sheet for FIG. 3C in accordance with 37 CFR §1.84).